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MEATH HOSPITAL.

POISONING BY BELLADONNA.

TO THE EDITOR OF THE DUBLIN MEDICAL PRESS.

Sir,—As I do not happen to have heard or read of any cases of poisoning by belladonna treated in this country by means of opium, I would feel obliged by your insertion of the subjoined cases in illustration of the antagonistic action of opium and belladonna. I also beg leave to ask for an early insertion, in order that, if a similar occasion should arise—a circumstance not very unlikely to occur—as the fruit of the belladonna is now ripe and attractive, your readers may have an opportunity of still further testing the propriety of this plan of treatment.

I am, Sir, your most obedient servant,
J. H. Wharton.

27, Upper Merrion-street, 28th August, 1862.

Case 1.—Thomas Murphy, æt. 10, was admitted under my care into the Meath Hospital on the 20th inst. His mother who accompanied him furnished the following history:—"On the preceding evening, in company with several other children, he repaired to the gardens in Brownstreet," formerly in the possession of the late Mr. Hunt, well known as a chemist and druggist in this city, "from which he returned home about half-past seven o'clock, when he stated that he had caten some poison berries about two hours previously, that his eyes were dim, and his tongue and mouth 'sticky.' He soon fell asleep, and at nine o'clock was awoke for supper, of which he took

none, and was restless and tossing about in the bed all night." On admission, the following particulars were observed: The patient was delirious, talked to his companions, whom he supposed to be present, laughed, caught at imaginary objects, and picked the bedclothes. On one occasion he sat up in the bed and stooped his head, as it were, into a basin of water, with which he went through the form of washing his face with his hands. He had frequent and almost uninterrupted spasmodic jactitations, which at times appeared to be not wholly involuntary, and they were occasionally so violent as to render it necessary to prevent him from being rolled or partly thrown out of bed. The movements of the limbs were of a changing character, at one time simulating chorea, at another hysteria, and after a little, tetanus. On one occasion his head and heels were drawn backward, as in opisthotonos; at another, his upper and lower extremities were extended to the utmost while he lay on his back and whistled a lively air; the pupils were enormously dilated, giving the eyes a brilliant softness; power of vision almost wholly lost: eves suffused and pinkish; countenance much flushed, and occasionally, his aspect was silly, and not seldom, sardonic: skin not deprived of sensation, as proved by his showing signs of pain and passion when pinched. An indistinct rash was observed by the resident pupil, but it quickly disappeared, as I could not ascertain its presence; general surface of the body warm, with the exception of his legs and feet, which were cool; pulse 110, and strong; pulsations well defined; respirations 28; tongue dry, of a vellowish brown colour; power of deglutition absent.

Case 2.—Eliza Kenny, æt. 6. History and symptoms very similar to those just described. The spasms were, however, less violent, and the delirium of a more hysterical character. In this instance, deglutition was not wholly lost, but was partly accomplished with much difficulty and perseverance, and with great and determined resistance on the part of the patient.

Case 3. James Flattley, at. 11, affected in a manner cor-

responding to that of his companions. The spasms, however, were neither so frequent nor so severe. Unlike them he was able at intervals to answer a simple question, such as "What's your name?" The comparative mildness of his symptoms was possibly due to his having vomited in the morning a portion of the "berries."

Treatment.—An emetic consisting of sulph. zinc, \ni i. was prescribed for Murphy (No. 1.), which was attempted to be administered by foreing open the jaws and giving it in small quantities. So far, however, from any effect having been produced by this means, it was soon discovered that whatever portion was retained in the mouth was spat out, and often with an apparently too-well directed aim at the bystanders. This tendency to spitting, which was manifested more or less all through Murphy's ease, was similar to that condition produced by chloroform.

Endeavours were then made to cause evacuation from the bowels by the administration of the following enema:

B. Spr. tereb. reet. \(\frac{7}{2} \)ss.
Olei olivæ, \(\frac{7}{2} \)i.
Tinet. assafætida, \(\frac{7}{2} \)ss.
Decocti hordei, \(\frac{7}{2} \)vi. \(M. \)

On the introduction of the long tube, the patient evidently strained, as if at stool, but no dejection took place. After a proper interval—during which a purgative bolus, eomposed of fifteen grains of the compound powder of jalap, was placed far back upon the tongue, an enema similar to the above was administered, and with a like result. To subdue the jactitation cold affusion was had recourse to, which produced only a temporary benefit. Sinapisms were also applied to the legs. In Casc 2 an emctie of sulphate of zinc was likewise prescribed, which, being followed by mustard and warm water and tickling of the fauces, caused a very moderate emesis; but no satisfactory evidence existed from examining the fluid ejected that it contained any portion of the belladonna fruit. A draft of castor-oil and turpentine was then prescribed. In Case 3, which was admitted after I had left

the hospital, a purgative bolus, composed of calomel and jalap, was most judiciously administered by the resident pupil, as deglutition was a matter of no difficulty.

Four o'clock p.m.: The patients' symptoms having been uncontrolled—indeed in Eliza Kenny's ease the excitement and flushing of the face were increased, it was resolved to place them under the influence of opium—a matter of difficulty, if not impossibility, with Murphy (Case 1). Accordingly, an eight-ounce mixture was prescribed, containing eighty drops of tineture of opium by measure, of which one ounce was directed to be given to Cases 1—if possible—and 3, every second hour until its action should be observed, and half that quantity to No. 2 at the same intervals.*

* I was induced to make trial of this method from the perusal of an article copied from the Philadelphia Medical and Surgical Reporter, and contained in the Dublix Medical Press of June 18, 1862. Dr. Lee, its author, gives a successful case of poisoning with belladonna treated by opium, and a second of poisoning with opium treated by belladonna. Dr. Lee gives the credit of first making known the antagonistic effects of opium and belladonna to Dr. Joseph Anderson of Edinburgh. (I may here be permitted to remark that Dr. Anderson was induced to treat poisoning with opium by belladonna on account of Dr. Graves' recommendation to administer belladonna in cases of continued fever attended with contraction of the pupil. Dr. Graves' remarks on this subject will be found in the Dublin Journal of Medical Science of July 1, 1838).

See also successful ease of poisoning with belladonna treated by opium, by A. Lopez, M.D., who, "from having successfully treated poisoning with opium by belladonna, was induced to test the reciprocal influential relation between the two poisons."—American Medico-Chirurgical Review, vol. iv., page 285.

For additional instances consult report of ten cases, one of which was fatal, the subject having been scrofulous, and for several months under treatment for disease of the bones of the face, as furnished by James Seaton, L.R.C.S.E., L.A.C.,

Ten o'clock p.m.: The Cases 2 and 3 were found to be much relieved, and to have taken their medicines regularly; the former in five, the latter in ten-drop doses. They had had some sleep, and had partaken of food. Becftea, and stirabout subsequently, a portion having been rejected. Case 1, however, had taken, or rather been forced to take, only an inappreciable quantity of his medicine, and as his state was not by any means improved, it was determined to exhibit the drug per rectum—a resolution warranted by the success arrived at in Cases 2 and 3.

Accordingly, fifteen drops were injected at midnight, and at two o'clock a.m. on the 21st the report is, "all three sleeping gently." At four, six, and eight o'clock a.m., the medicines in the doses already supplied were regularly given. It was also duly administered in Case No. 1, as he was enabled to swallow in two hours after the exhibition of the opiate enema.

At nine o'clock Case I is reported, "Delirium subsided; all spasm gone; is still a little stupid about answering questions; pupils less dilated; a like improvement in the other two." The opium was now administered at increas-

who "was led to try this plan of treatment," by opium, "from the perusal of a paper, of which Mr. Benjamin Bell was the author, and published in *Edinburgh Medical Journal*, 1858."—Medical Times and Gazette, New Series, vol. xix.

(Mr. Bell gives some cases where the subcutaneous injection of morphia was used to counteract the poisonous effects of the subcutaneous injection of atropine).

In the British Medical Journal, vol. ii., page 30, an interesting case is published by William Newman, M.D.Lond., of a patient, who, through mistake, had been allowed to continue the use of morphia. Upon awaking after a sound sleep, she took some "pills" which she found in her bed, for the purpose of procuring more sleep, as she alleged; but a contrary effect was produced, for the pills were portions of cmp. bellad. and thuris., disengaged from a plaster which had been applied to relieve palpitation.

ing intervals, until finally stopped on the 23rd, when the patients were discharged, moderate dilatation of pupils continuing in Cases Nos. 1 and 3, and none in Case 2. All the cases had double vision at a certain distance, and at uncertain distances, incapability of counting correctly was manifested; none had anæsthesia. Retention of urine was not present in any. It passed involuntarily in Case 2, not so in Case 3, the subject of which expressed a desire to relieve his bladder. With regard to Case 1, I am unable to speak with greater certainty than that before admission, according to the mother's account, there was no retention. All were flushed, and, as before mentioned, the muscular movements were similar, though greatly intensified, and varied in Case 1. In all, the pupils were obviously less dilated during sleep than wakefulness—a condition verified by repeated observation.* The quantity of opium taken by Case 3 amounted to about fifty-five drops;† by Case 2, double

* At a meeting of the Surgical Society of Ireland, Mr. Tufnell, one of the Surgeons of the City of Dublin Hospital, read a paper on two cases of poisoning by belladonna which came under his care at that institution. In Mr. T.'s cases, which were also successfully treated, the state of the pupils during sleep, as contrasted with that in the opposite condition, was similar to that specified above. This hitherto unknown or, so far as I am aware, unrecorded symptom, was first observed by Professor Geoghegan, as mentioned by Mr. Tufnell. I may remark that this contraction, or rather lessening of the dilatation during sleep, could not have been the result of opium, as in Mr. Tufnell's cases none was administered.—Dublin Medical Press of January 5, 1853.

† In Dr. Lee's ease, which was that of a child, et. 6, but who had taken one drachm of tincture of belladonna, one hundred and twenty drops of tincture of opium were given in twenty-drop doses, and the medicine prescribed both by the mouth and rectum "every half hour. After the third dose the pupils began strongly to contract, the purple hue of the face to fade, and in three hours the child was well and running about the room."—Loc. cit.

that quantity; by Case 1, reekoning only from the exhibition of the opiate enema, eighty-five. With regard to the opium, it is perhaps not unworthy of mention, that the bowels continued constipated in Case No. 1, as also the inability to swallow until the antagonistic effect of opium had been observed; that vomiting in Case 3 occurred under the same circumstances, although no emetic had been prescribed; and the same may be said of Case 2, for the vomiting which occurred after the partial exhibition of the sulph, zine and mustard, was rather the return of the small portion of these substances which had been swallowed.

I cannot bring the foregoing to a close without acknowledging my obligations to Mr. John J. Ball, the acting resident pupil at the Meath Hospital, who reported the foregoing cases, and who, from personal inspection earried on every two hours by night and day, so long as the urgency of the symptoms continued, was enabled to note the above particulars.





